Designing a Reference Training Course and Cultivating a Community of Practice: Utilizing the LMS for Staff Training and Development

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Abstract

This paper will review research pertaining to the value of cultivating a Community of Practice (CoP) framework in the workplace. It will examine how such a framework can be applied to an academic library environment to foster a collaborative, inclusive, and healthy workplace while directly supporting the library's strategic plan and directions.

The conceptual Reference Trainers CoP framework outlined in this paper will provide an example of how libraries can utilize their institution's Learning Management System (LMS) for this purpose, and offers recommendations and considerations for developing a CoP framework ready for implementation.

As a community of like-minded individuals engaged in cooperative training and resource-sharing activities, creating a Reference Trainers CoP can provide support for those pursuing best practices for the benefit of colleagues across a library system who are involved in the development of reference staff and engaged in the evolution of reference service models.

This paper also discusses the process involved in transferring reference training program materials to a LMS. The author created a "Reference Training Course" for new and existing employees working in reference and research services. The author provides a toolkit for reference trainers interested in utilizing a LMS for creating their own reference training modules, as supplement to their in-person training.

The toolkit offers ways in which the author approached a course build without having any prior knowledge of instructional design or exposure to the LMS software. It includes the following: recommendations for simplifying the process using course design templates, creating learning outcomes based on Bloom's Taxonomy, a list of freely available instructional design training videos, and best practices.

In addition to supporting colleagues interested in online training program creation, these materials will also provide initial supportive content for the Reference Trainers CoP as previously discussed. It is the author's hope that experience gained through using the LMS software in this way will expose members of this future CoP to the ways in which training programs can be made more accessible and engaging for staff undergoing reference training.

The author envisions this CoP framework to be a pilot that demonstrates how a LMS can be utilized for other library staff training and development environments as well as expand beyond institutional borders, to the greater academic library community.

Introduction

The Sexton Design & Technology Library (Sexton Library) is one of five libraries at Dalhousie University, in Halifax, Nova Scotia, Canada. It is located on the Sexton Campus, and serves the faculties of Engineering, Architecture, and Planning.

As Reference Coordinator at the Sexton Library, I develop and facilitate reference services staff training programs and train and supervise School of Information Management (SIM) MLIS interns at the Sexton Library in reference services. Working closely with the Manager of Library Services, I provide general reference training for Access Services staff and student assistants at the Sexton Library.

Part of my role as Chair of the Libraries Internship and Practicum Coordinating Committee (LIPCC) includes coordinating student internship and practicum opportunities across the Dalhousie Libraries system. Under the umbrella of the AUL, Library Services, LIPCC coordinates the streamlining of intern training and development through the Intern Enrichment Program. This program covers some of the more general intern training topics that apply to all the interns within the libraries. In addition, LIPCC also created a mutually supportive internal document: *Best Practices for Intern Supervisors*.

My work in these areas has directed my professional development interests toward leadership, staff development, and mentorship within the context of the above-mentioned training and collaborative programs. More specifically, I am interested in how the Community of Practice (CoP) framework can be used to foster a collaborative, inclusive, and healthy workplace at the Dalhousie Libraries. I envision a community of like-minded individuals engaged in cooperative training and resource-sharing activities and pursuing best practices for the benefit of colleagues across the library system who are involved in the development of reference staff and services.

Cultivating a CoP specifically related to reference staff and intern training supports the Dalhousie Libraries Strategic Plan 2015-2018 [1] under 1.2 "Integrate services, spaces and staff into student research and learning activities" (Aligns with Dalhousie University Strategic Priorities 1.1, 1.4 and 1.5.) and may inform and support other initiatives in 1.4 "Play an active role in the development and deployment of the upcoming campus-wide technology enabled learning strategy" (Aligns with Dalhousie University Strategic Priorities 1.2 and 1.4.), 5.1 "Expand opportunities to develop employee competencies" (Aligns with Dalhousie University Strategic Priority 5.1.), and 5.2 "Foster a collegial culture grounded in diversity and inclusiveness" (Aligns with Dalhousie University Strategic Priorities 5.2).

Communities of Practice
What is a Community of Practice (CoP)?

A community of practice (CoP) is "a group of people pursuing a common interest, where they engage in joint activities and discussions, help each other, share information and interact and learn together…they develop a shared repertoire of resources including shared experiences, stories, and supportive tools to solve problems [2]." It is based on the foundation of mutual help,

peer assistance and knowledge exchange [3]. Members foster innovation and develop a sense of community by building relationships through shared specialist knowledge and insights [4]. In the midst of knowledge exchange there exists an individual commitment to the creation of new knowledge in action, and the development of new skills [3]. These new skills are gained within the context of a passion (or subject area of competence) shared by the group [5]. They may address the challenge of change, and innovations within their area of focus, or implement new strategies within an area of competence [6].

These groups differ from a traditional mentoring model, in that the members participate in a non-hierarchical way. As Kerno and Mace [7] point out "hierarchical structuring tends to be diametrically opposed to how a CoP operates in several ways [7, p. 85]." A CoP encourages a more collaborative environment and brings together librarians and other library colleagues with diverse perspectives, and positions at varying skill levels [7, p. 85]."

Depending on the group activity, members are considered a novice or an expert [8] and as they become more comfortable with group interactions, they may change the way they engage with their colleagues over time. "Novice members engage from the periphery or edge at first, but as they become more experienced and knowledgeable they start to take a more central role and begin sharing their knowledge with others [5, p. 27]."

According to Wenger, McDermott and Snyder [9], a community of practice is a building block of a social learning system. This system determines its own purpose and is made up of shared competencies. Modes of belonging to a CoP are built on the foundation of member engagement, while the two-way communication that exists is transparent [6].

There is a process of "thinking together" that takes place within a CoP that happens organically [10, p. 389]. This thinking together is built on the foundation of the development of three structural elements. These are: mutual engagement while solving problems, discussing mutually agreed upon topics of interest, and creating new knowledge together as a group [11]. The implications for a CoP in an academic environment go beyond knowledge sharing, in that they can also support other activities mandated by the University [12].

Communities of Practice in Academic Libraries

The literature suggests that academic libraries are reconsidering the traditional top-down mentoring model and gravitating toward a more inclusive, effective model, whereby individuals of varying skills are encouraged to participate in communities of practice [13]. This model is more similar to a peer-mentoring model and creates and supports a culture of learning [5].

Listed below are examples of how academic libraries are exploring, creating, and participating in the CoP model, as it relates to peer-to-peer networks and professional and leadership development within a university library system.

After reviewing different modes of mentoring, the University of Idaho Library established a CoP in support of five new librarian hires between 2007 and 2008. Henrich and Attebury [13] came to the conclusion that a re-evaluation of traditional peer-mentoring models was necessary due to the

interdisciplinary and collaborative nature of academic work [13, p. 158]. The development of a CoP came in response to new librarians desiring mutual support as well as the support of more experienced colleagues during the promotion and tenure process.

Bilodeau and Carson [5] discuss how well the CoP model works within the university library system to support the learning methods of new academic librarians. It provides an opportunity for peer-to-peer engagement that satisfies the desire for group learning outside of the more prevalent self-directed study or through the interactions that happen informally at library social networking events.

The University of Ohio implemented several different communities of practice in response to the desire to create a more flexible and open workforce that supports its librarian complement as they continue to re-skill. Within the context of supporting the trend toward flexible workforces, balancing that with new librarian hires, and sustaining its "legacy workforce," subject librarians created several CoPs to support themselves [14].

The University of Saskatchewan (USask) implemented a CoP in 2012 on the topic of leadership development, inspired by the Ohio University Library system [15]. Their CoP developed out of the need to create momentum for activities following a leadership development workshop. With some member turnover annually, they have managed to establish a core group that come from all layers of the organization with a shared passion in leadership.

Designing and Cultivating a Conceptual CoP Framework

Kerno and Mace [7] provide a thorough overview of a theoretical framework for learning together. Within it, "CoPs contain four necessary components: (a) practice; (b) meaning; (c) community; and (d) identity, and these elements are acutely connected and mutually defining. Thus, any of the four may be exchanged with learning for the center of analysis (Wenger, 1998) [7, p. 80]."

When considering a conceptual framework appropriate for the Dalhousie Libraries Reference Trainers CoP, the resources outlined in this paper will provide guidance, ideas and support (see Resources for Communities of Practice). For instance, *The Community of Practice Design Guide*, developed by the EDUCAUSE National Learning Infrastructure Initiative [16], provides a thorough step-by-step guide for designing and cultivating a CoP online in Higher Education.

The *Guide* suggests building a pilot with short-term goals, involving a select group, in order for stakeholders to gain commitment, test assumptions, and refine the strategy. The roll-out can take place slowly, over a period of time, to engage new members [16, pp. 5-7].

It is recommended that Dalhousie Libraries reference trainers interested in a CoP follow the first three steps in the *Design Guide*. After the pilot launch, members can decide how they would like to engage, grow and sustain as a group.

> The Design Guide recommends the following five steps for developing and
> designing a CoP Framework:

1. Inquire: Identify the audience, purpose, goals, and vision of the community.
2. Design: Define the activities, technologies, group processes, and roles that will support the community's goals.
3. Prototype: Pilot the community with a select group of key stakeholders to gain commitment, test assumptions, refine the strategy, and establish a success story.
4. Launch: Roll out the community to the broader audience over a period of time in way that will attract new members and deliver immediate benefits.
5. Grow: Engage members in collaborative learning and knowledge-sharing activities, group projects, and networking events that meet individual, group, and organizational goals while creating an increasing cycle of participation and contribution.
6. Sustain: Cultivate and assess learning, knowledge, and products created by the community to inform new strategies, goals, activities, roles, technologies, and business models for the future [16, p. 2].

Benefits

There are many benefits to CoPs related to exploring individual and group potential through professional development and research [17]. There is an opportunity to share knowledge and accelerate the learning process of individual members, reduce costs by pooling resources, as well as identify possible opportunities for research collaboration amongst members. This becomes possible by translating the CoP learning activities into "codified, repeatable, and refined procedures [7, p. 83]."

Success & Sustainability

Kerno and Mace [7] state that while this knowledge sharing and cultivating are beneficial, it requires a culture shift within academic libraries [7, p. 87]. This type of group learning requires system-wide change [13, p. 162] and a level of trust in each member to be responsible for their own participation and learning.

The sustainability of a CoP is dependent on the level of engagement, and community building amongst its members [13]. It is important for the group to constantly explore new ways to interact since the natural tendency is for active participation to fade over time. "Many intentional communities fall apart soon after their initial launch because they don't have enough energy to sustain themselves. Communities, unlike teams and other structures, need to invite the interaction that makes them alive [18]."

Evaluation

It is recommended that qualitative assessments and evaluation of a CoP would benefit its evolution and perceived value. Studies have found that evaluating the productivity and satisfaction levels within peer mentoring groups, normally through participant evaluations, informs future improvements of these groups [19].

Software & Communication

A CoP determines the terms of the group, including the online platforms from which they operate, and the terms of how they communicate. Depending on the needs of the CoP, choosing suitable software to meet communication needs will be an important group activity early on in the design process, particularly if the group decides to expand the community outside of the organization.

While the virtual infrastructure of online meetings is important, so is meeting in person. Conducting regular face-to-face meetings is integral to keeping a high level of engagement amongst CoP members. "The technical architecture supports the community, while the social architecture enlivens it [16, p. 2]." Both online and in-person environments "are essential in relationship building, collaborative learning, knowledge sharing and action [16, p. 2]." Face-to-face meetings have the advantage since written communication takes longer [3, p. 66].

Expansion

The interactions that a CoP facilitates need not necessarily stay within the confines of one institution or organization. They may "expand beyond rational boundaries" of that organization to other entities with "functional similarity or equivalence [7, p. 84]." Because technology enables meetings and knowledge creation to happen in real-time online, close physical proximity among members is not required for a CoP [8, p. 260]. When creating an institutional CoP at the Dalhousie Libraries, the manner in which the community may develop and evolve in the future should be given some attention early on in the design process.

Community of Practice for Reference Trainers

Forming a Reference Trainers CoP at the Dalhousie Libraries not only supports the development of reference trainers, it also "supports development and exchange of generalist and subject specialist expertise, not to mention other professional development, transitions to new service models, and maintenance of institutional memory [20, p. 21]." Self-directed study, informal training, formal training, either in-house or provided by an outside source, all contribute to building and maintaining knowledge within a CoP.

Before cultivating a Reference Trainers CoP at the Dalhousie Libraries, the first step will be to educate colleagues on CoPs, how they operate, and then promote it to potential members by presenting value-added benefits for creating such a community. Once interested members are identified, the design of the CoP can begin. After a pilot launch, consideration for how to proceed with the development and expansion of the CoP can move forward.

Early in the process the Reference Trainers CoP will want to consider software tools that facilitate collaboration, capturing and sharing. Brightspace, Ponopto and Collaborate support all of these functions. The Brightspace LMS facilitates resource sharing, collaborative course-content creation, and discussion groups. Ponopto provides lecture recording, screencasting, video streaming, and video content management. Collaborate offers web conferencing. Opportunities

for incorporating social media applications into the group's communication toolbox in order to enable different levels of engagement [21] may also be carefully considered.

Creating a Reference Trainers CoP at the Dalhousie Libraries in Brightspace will benefit individuals and the library system by allowing reference trainers to collaboratively develop their skills as well as exposing them to features of the Brightspace platform. With CoP interactions taking place within the LMS, staff will be positioned to learn how to use the LMS simply by participating in the CoP [22, p. 5].

When designing the Reference Trainers CoP the implications of knowledge management play a key factor in the sustainability of the group. Deciding how this knowledge will be archived and made easily accessible for re-use also needs to be considered. That being said, close consultation with Academic Technology Services (ATS) at Dalhousie will be necessary when designing a knowledge asset database, keeping in mind the possibility for the CoP to expand in the future.

Brightspace Collaborate supports the ability to invite guests to an online meeting; however, it does not support permanent membership for anyone associated with institutions other than Dalhousie. After the pilot launch, other tools that can support this type of cross-network sharing and learning, such as Zoom and BaseCamp, will need to be explored and evaluated.

Potential Activities

The reference training program at the Dalhousie Libraries includes reviewing key resources via subject guides during and after training takes place. These guides, heavily used during research consultations, are most often the first point of contact with a subject area during the reference interview process. Bagshaw and Yorke-Barber [23] suggest that subject guides could be considered as a staff-development tool. According to Miller [20], "the community of practice is an alternate view of developing general or subject-specific reference expertise [20, p. 20]."

I created a Reference Trainers CoP subject guide exclusively for reference trainers (see Resources for Communities of Practice). This subject guide can be used as a tool for building knowledge assets within the Reference Trainers CoP. "Library guides are created and maintained across university libraries yet they are rarely discussed for the collection and resource knowledge benefits they provide librarians assisting clients [23, p. 31]."

Miller [20] offers several ideas for CoP activities, many of which are shared in person, or over several different platforms, rather than just one stand-alone online space. These could very easily be applied to a more self-contained online platform such as Brightspace. More specifically, Miller suggest there are "opportunities to share operational announcements, "how-to" guides for a resource or technology, and even information about a particular subject or resource [20, p. 23]."

The CoP will expand as it develops competencies and knowledge assets and as its value becomes more widely recognized within the organization.

Here is a list of ideas for potential activities:

- Repository of sharable modules and other training materials
- Share and discuss current reference services research and articles
- Build infrastructure for sharing knowledge [20, p. 23]
- Professional development resource sharing (current research articles of interest, handouts, webinar recordings, etc.)
- Share training stories and lessons learned
- Co-create best practices
- Develop research competencies, and create publishing opportunities [17, p. 90]
- Invite those new to reference training to use the CoP as an orientation tool
- Design shared learning outcomes for reference training
- Support the transition to new reference and research service models [20]
- Cross-training opportunities, and tutorials to orient colleagues [20]
- Build competencies within group, and within training courses
- Set up boundaries for CoP conduct, confidentiality with sharing of ideas in a safe environment
- Develop and co-create reference training tools such as training modules, staff manuals, wikis, and handout templates
- Co-create published materials, such as a regular newsletter, research articles, and conference presentations
- Conduct virtual meetings and discussions

Resources for Communities of Practice

Among the initial tasks facing the CoP will be for members to decide how the group will operate and which shared competencies the group will pursue.

In addition to other supportive materials, a bibliography of recommended readings, and the resources mentioned below can be found on the Reference Trainers CoP LibGuide created for this project available here: http://dal.ca.libguides.com/referencetrainerscop

Some highlights on the LibGuide include the following:

On their website, the Wenger-Trayners, the primary authorities on Communities of Practice, provide a thorough list of resources recommended for cultivating a CoP. Staff who consult them will find that these resources provide a comprehensive introduction to this new method of collaborative learning.

In addition to the Community of Practice - EduTech Wiki, The University of British Columbia's Centre for Learning, Teaching and Technology maintains a Communities of Practice webpage that provides resources for CoP facilitators and a thorough annotated bibliography on communities of practice.

Using the LMS for Staff Training & Development

Because of the many advantages of making training materials accessible online, the LMS has the capacity to serve as a valuable reference staff training and development tool for the Dalhousie Libraries.

Brightspace can be considered a career planning tool [24] supplemental to our current staff training and development programs. "An LMS is well suited for e-training in Libraries since they are designed to deliver and assess learning [22, p. 3]."

As Bell [25] outlines, there are many obvious benefits to utilizing the LMS for library staff training purposes including an online workspace which they can access anywhere, anytime as well as provide a centralized location for training materials [25, p. 239].

The intention behind creating a reference training course using the LMS is not to replace in-person training altogether, but rather to enhance it using the features of the LMS. Developing reference training modules in Brightspace offers a more dynamic, content-rich, blended, and centralized learning environment. There is also greater flexibility and accessibility for self-directed options available for staff refresher trainings. As Bell [25] points out, in one study by Haley [26], the majority of library staff prefer face-to-face training (unless they have to travel a great distance for their training session) [26, p. 37]." With this in mind, it would be best to offer online training as supplemental to face-to-face training to accommodate the preferences of library staff [26, p. 38].

The features of Brightspace create the opportunity for more interactivity between the trainer and trainee and supports effective communication and evaluation throughout the training process. "The LMS also offers library administrators an effective way to outline goals and learning outcomes, as well as an easy means to evaluate and track their trainees' progress. Despite the fact that LMSs have not been widely used as online library training [25, p. 239]."

Using the LMS for library training purposes may also expand the professional competencies of reference trainers and trainees alike. Red Deer College Library, for example, is using their LMS for staff onboarding as well as ongoing staff trainings and professional development. In their experience, there is added value in conducting training through the LMS, such as familiarizing staff with the features of the LMS environment. In turn, they are better equipped to support students with the software [22].

The following is a list of ways to use Brightspace to enhance the reference training experience, for both the trainer and the trainee:

- Support "on-demand training" anytime, anywhere [22]
- Address challenges with coordinating in-person trainings
- Capability of embedding existing content, such as library tutorial videos
- Offers a wide-range of options for presenting professional development content: share webinars, provide opportunities for peer coaching, access to discussion boards, provide training assignments, and access to training modules [22]

- Ability for individual staff members to track their own professional development in the Brightspace ePortfolio
- Select modules can be reused for other staff training opportunities, refreshers, and staff onboarding
- Peer-to-peer support with "trending" reference questions communicated through the course discussion platform
- More efficient use of time during in-person training sessions, since review of the material happens online beforehand
- Communication with trainees is streamlined since everyone is receiving the information through centralized course correspondence (special announcements, changes to service model, vendor product changes, etc.)

Sexton Library Reference Training on Brightspace

The delivery methods of the Sexton Library reference training program have evolved significantly since I began as Reference Coordinator in 2005. Before my arrival, the program was conducted in person with a print manual. By 2008, I transferred all of the content from the print manual to a wiki. Utilizing Brightspace for training purposes is the next logical step in the evolution of the reference training program at the Sexton Library.

Brightspace modules offer the flexibility required to target specific training content at various training levels. Trainees who require only basic-level reference knowledge will be instructed to complete a selection of specific modules, while trainees who require in-depth reference knowledge will be instructed to complete all of the modules.

The many facets of the training program can be massaged so that each staff group receives the level of reference training they need. All levels of training can be facilitated through a blend of in-person and online sessions. These include:

- In-depth reference trainings for anyone staffing the Reference and Research Service Point – required to complete all of the modules:
  - New librarian hires
  - MLIS student interns
  - Nova Scotia Community College practicum students
  - Other staff members who work in reference and research services
- Basic-level reference trainings for anyone staffing the Circulation/Access Service Point – required to complete a selection of modules:
  - Student assistants working on the Service Desk
  - Service Desk (Circulation) staff
  - Staff refresher trainings

Building a Brightspace Course: A Toolkit for Trainers

This toolkit describes an approach to designing and building the Sexton Library Training course to support colleagues interested creating their own Brightspace training course. It will also provide initial supportive content for the Reference Trainers CoP at the Dalhousie Libraries.

The LMS software allows for an organized, content-rich training program. Trainees following an outline for the course will find the content presented in a linear fashion and discover that learning outcomes and training activities are clearly defined. The platform encourages a more creative way of presenting the material, including the use of valuable assets such as library tutorial videos and embedded links.

The process for creating a training course in Brightspace is divided into the following sections and steps:

Course Design Preparation
- Step 1: Learning about Instructional Design

Course Design
- Step 2: Working with an Educational Developer
- Step 3: Course Plan and Learning Outcomes

Course Build
- Step 4: Course Build in Brightspace

Course Launch & Development
- Step 5: Course Launch
- Step 6: Further Course Development

Course Design Preparation
Step 1: Learning about Instructional Design

Before I began this project, I had no prior knowledge of instructional design, nor did I have any previous experience building online courses in the LMS. Before meeting with an Educational Developer at Dalhousie's Centre for Learning and Teaching (CLT) I reviewed introductory tutorials related to instructional design on Lynda.com, and I attended Brightspace trainings offered through Dalhousie's ATS. Gathering as much knowledge as possible before meeting with CLT was very beneficial in that it informed a lot of questions prior to designing the course, as well as maximized time during design meetings.

Lynda.com courses not only familiarized me with instructional design vocabulary, they also inspired me to identify design elements that I appreciated as a "student" and that I would keep in mind during my own course design.

Below is a list of recommended self-directed courses for instructional design:

Lynda.com
- Essentials of Instructional Design (includes 6hrs of training)
  - Instructional Design: Models of ID

- o Instructional Design: Needs Analysis
- o Instructional Design: Storyboarding
- o Instructional Design: Adult Learners
- o Instructional Design: Working with the SMEs
- o Instructional Design: Creating Video Training
- The Neuroscience of Learning

YouTube.com
- Brightspace YouTube channel

Dalhousie Human Resources Courses

Human Resources at Dalhousie offer a regular rotation of Brightspace-related training courses. It is recommended to complete these courses prior to building your own Brightspace course. The staff at Dalhousie's ATS facilitate the following trainings and are available for technical support during the course build process.

Dalhousie's Academic Technology Services (ATS) Courses
- Brightspace Basics
- Brightspace Ponopto/Collaborate
- Brightspace Assignments
- Brightspace Quizzes
- Brightspace Discussion/Communication

Dalhousie's Centre for Learning and Teaching Programs

Dalhousie's CLT offers studio courses and a non-credit certificate program for free to Dalhousie faculty, fellows and staff interested in broadening their knowledge of eLearning, and teaching. The certificate program is divided into four components and participants have up to three years to complete it.

- Studio Courses in Teaching and Learning
- Faculty Certificate in Teaching and Learning
  - o Learning focused course design
  - o Studio Courses
  - o Peer Observations
  - o Teaching Dossier

SkillSoft

Dalhousie has access to SkillsSoft for employees. This corporate learning platform includes several communication courses platform that could support a course build.

Course Design
Step 2: Working with an Educational Developer
Step 3: Course Plan and Learning Outcomes

Using course design principles and a course plan template developed by the CLT at Dalhousie, I worked closely with an Educational Developer meticulously outlining the course before I began building it in Brightspace. As Macnaughton and Medinsky [22] state, "a well-designed online course in a learning management system can provide a structured, asynchronous learning environment [22, p. 7]." In my experience, a well thought out course plan that makes use of the learning outcomes created at the beginning of the process saves a significant amount of time during the course build stage of the project.

As Macnaughton and Medinsky [22] state, "It is important to apply principles of course design when developing a course in an LMS. The RDC Library applied a backwards design approach, with developed learning outcomes, learning activities, and assessments that measure the outcomes [22, p. 6]." With that in mind, working alongside one of CLT's Educational Developers was fundamental in creating a successful course outline. This required many face-to-face meetings earlier on in the process. After the course plan was complete, the Educational Developer and I worked one-on-one with the course design elements.

During the time I was working on the design elements, it was also beneficial for the Educational Developer to be added as an instructor to the course. This way, I was able to complete this work on my own, and any questions I had regarding design and functionality could be answered via email.

As Macnaughton and Medinsky [22] further point out, creating learning outcomes is a very important piece in the development of an online training course. "Learning outcomes follow a specific format, using measurable verbs from Bloom's Taxonomy ("by the end of this course, library staff will be able to...") [22, p. 6]." One of the first approaches suggested by the Educational Developer at CLT was to create learning outcomes and descriptions for each module using Bloom's Taxonomy verbs. These lists of verbs are readily available online to support the articulation of learning outcomes.

I modified the course plan template developed by CLT (see Appendix A for a sample of Course Plan template) slightly to suit my needs since most of the assessment for reference training is based on hands-on training outcomes, practice questions, and discussions between myself and the trainee, rather than through formal course assignments. I created the first three modules and met with the Educational Developer again in order to receive feedback before continuing to outline subsequent modules (see Appendix B for a sample of modules from the Reference Training Course Plan Draft).

Course Build
Step 4: Course Build in Brightspace
Summary of step-by-step for creating a course

1) Send request to LMS administrators to create course page
2) Add instructors if required

     a. Consider adding Educational Developer as instructor during build stage
3) Work on course plan, include outcomes, activities and assets within the course
4) Construct the course modules in Brightspace
5) Soft launch, and testing
6) Add trainees to course
7) Launch training program
8) Feedback, further testing, and course maintenance

Designing Modules Based on Course Plan

Each of these modules should include the learning outcomes outlined in the course plan as well as a module description (summary of the module).

Creating a Course Homepage with Widgets

Brightspace offers several widgets to support a course homepage build. The course homepage should include a welcome message and other elements of your choice, such as:
- Course Calendar
- Course Announcements

Choosing to include introductory videos made with web-based video creation software such as Biteable informs a more fun and dynamic homepage.

Ponopto & Library Training Videos

The Dalhousie Libraries has access to many training assets such as library tutorials. Tutorials already made accessible via the Dalhousie Libraries' YouTube channel are embedded into the course directly. Other training videos .mp4 files are embedded into the Ponopto player for viewing.

In order to track training video views and statistics, they must be embedded into the Ponopto player.

Accessibility

It is important when creating webpage content within Brightspace to apply the institutional webpage template, or create customized formatted headings. The use of proper heading styles will ensure that the content is made accessible, and recognizable by assistive technology, in the event that trainees require it. Further considerations for accessibility and instructional design will need to be explored.

Keep in mind, only those Dalhousie Libraries tutorials available via YouTube include closed captioning.

Adding Web Links

Web links should be set to "open as external resource" since Brightspace does not allow for embedding a webpage directly into the platform.

Course Launch & Development
Step 5: Course Launch

The goal is for a soft launch and testing to occur during summer of 2019. After feedback is gathered, the content can be modified in preparation for an official training program launch in the fall of 2019.

Once training is complete, trainees will remain enrolled until the end of their employment at Dalhousie so they may receive reference services-related notifications through the Brightspace platform. For example, product alerts, reference services announcements such trending reference questions, and other informative, and time-sensitive news items.

Step 6: Further Course Development

Course Feedback & Engagement

As with any reference training program, it is expected that this Brightspace course will evolve. Like any living document, it will require on-going maintenance. In Macnaughton and Medinski's [22] experience, "the course has evolved and remains a work in progress, with its design and outcomes being continuously assessed by supervisors through ongoing staff participation and feedback [22, p. 7]."

I intend for this course to be a dynamic space. Gathering trainee feedback will be a key component of future course improvements. My meetings with the Educational Developer at CLT have helped to inform ideas for soliciting that feedback, including how I might continue to stay on top of its effectiveness in design and content. The suggestion is to incorporate small polls within the course, and to consider soliciting feedback on specific elements over time. Involving trainees in this process keeps them engaged as stakeholders.

This feedback could be as simple as asking for an opinion regarding videos or links, with a ratings and comment box. Analytics within Brightspace also provide useful information about what is being used, and what videos are being watched, and reveal which activities are performing better than others.

The question to ask is what kind of information will contribute to improving the course, and how learning analytics can be used to make the course more effective in future interactions (evaluating user engagement and soliciting feedback). If the feedback is intended to be used for a research paper or study, ethics approval will be required to harvest the information within Brightspace.

Possibilities for Further Course Development
- Perform ongoing maintenance and solicit regular feedback
- Design assessment tools such as mini quizzes
- Create additional training videos
- Consider discussion board topics as a means to inform the need for new, value-added content
- Design trainee self-assessment tools
- Further explore accessibility and instructional design features

Possibilities for Staff Training and Development Programs
- Map shared employee competencies to learning outcomes
- Implement an eLearning strategy for staff training and development programs

Resources for Brightspace & Staff Training

eLearning, and instructional design resources are available on the Reference Trainers CoP LibGuide. The LibGuide is available here: http://dal.ca.libguides.com/referencetrainerscop

Conclusion

The literature reviewed in this paper pertains to the value of cultivating a CoP framework in a workplace and offers examples of how other libraries have applied this framework to their own areas of shared passion or subject area of competence.

The recommendations and considerations for building a CoP framework outlined support colleagues to create their own CoP ready for implementation, including resources and a list of potential activities to guide interactions. It is my hope that those interested in applying this framework will confidently explore this new way of collaborating, learning, and thinking together.

Cultivating a Reference Trainers CoP is a way for the Dalhousie Libraries to think and work together differently and will require a system-wide culture shift. It supports the Dalhousie Libraries Strategic Plan 2015-2018 [1] under 1.2 "Integrate services, spaces and staff into student research and learning activities" (Aligns with Dalhousie University Strategic Priorities 1.1, 1.4 and 1.5.) and may inform and support other initiatives in 1.4 "Play an active role in the development and deployment of the upcoming campus-wide technology enabled learning strategy" (Aligns with Dalhousie University Strategic Priorities 1.2 and 1.4.), 5.1 "Expand opportunities to develop employee competencies" (Aligns with Dalhousie University Strategic Priority 5.1.).

This non-hierarchical approach to learning and thinking together through group activities also fosters a more collegial, diverse, and inclusive work environment as outlined in Dalhousie Libraries Strategic Plan, priority 5.2 "Foster a collegial culture grounded in diversity and inclusiveness [1]." Members from different parts of the Dalhousie Libraries will be invited to participate in knowledge creation and exchange, and inspire innovation in the areas of reference services, and staff training and development.

The first step to cultivating a Reference Trainers CoP at the Dalhousie Libraries will be to educate colleagues on CoPs. Once members are identified and the group is formed we can begin to work collaboratively on the design structure of the CoP. As we expand and build upon this initial framework, I am interested to see how it develops over time.

I envision this CoP framework as a pilot project intended to demonstrate how the Dalhousie Libraries can utilize Brightspace more broadly for staff training and development purposes. Brightspace is the ideal instrument for this project, as it facilitates resource sharing, collaborative content creation, and discussion groups.

While converting all the Sexton Library reference training documents, training outline, and knowledge base to the Brightspace platform, my shared experience with using the software in this way will expose members of this CoP to the ways in which other Dalhousie Libraries training programs can be made more accessible, and how they can create a more blended and engaging learning environment for library employees undergoing reference training.

The toolkit outlines everything one needs to get started on a Brightspace training course without any prior exposure to the software or experience with instructional design. It includes the approach for preparing, building, and launching the course as well as plans for future course development and maintenance.

More specifically, it includes the recommended trainings, instructional design training videos via Lynda.com, and best practices. It also includes ways to simplify the process by utilizing a course design template, and creating learning outcomes using the vocabulary from Bloom's Taxonomy. In addition to supporting colleagues interested in Brightspace training course creation, these materials will provide initial supportive content for the future Reference Trainers CoP.

This CoP pilot has the potential to be applied within the context of more general Dalhousie Libraries' training environments, such as staff onboarding and regular refresher trainings, and to be utilized beyond Dalhousie's institutional borders by the greater academic library community.

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Appendix A
CLT Course Plan Template Sample

<table>
<tr><td colspan="5" align="center">Course Plan

Instructor: _____

Course: _____

Implementation Date: _____</td></tr>
<tr><td colspan="5" align="center">Course Learning Outcomes:

</td></tr>
<tr><td>Week 1</td><td>Date</td><td>Content</td><td>Activities</td><td>Assessment/Grading</td></tr>
<tr><td>Outcomes:

</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Week 2</td><td>Date</td><td>Content</td><td>Activities</td><td>Assessment/Grading</td></tr>
<tr><td>Outcomes:

</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Week 3</td><td>Date</td><td>Content</td><td>Activities</td><td>Assessment/Grading</td></tr>
<tr><td>Outcomes:

</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Week 4</td><td>Date</td><td>Content</td><td>Activities</td><td>Assessment/Grading</td></tr>
<tr><td>Outcomes:

</td><td></td><td></td><td></td><td></td></tr>
</table>

Sample of Sexton Library Reference Training Course Plan Draft (Modules 1-5 of 12)

Instructor: Sarah Jane Dooley, Reference Coordinator for Sexton Library

Course: Sexton Library Reference Training Program* (supplemental to in-person training)

Implementation Date: TBD

*Depending on type of employee, one, some, or all modules would need to be completed
*Can be modified throughout term, and refreshers encouraged once a term, or when changes occur

NOTES:

New employees who work on Reference & Research service point: All modules

MLIS Reference Interns: All modules

Existing employees who work on Access Services point: Modules 2-3 and 10-12 (basic ref training)

Existing employees new to Reference & Research service point: Modules 2-12 (in-depth ref training)

New employees in Access Services: Modules 3 and 9-12 (basic ref training)
Existing student assistants in Access Services: Modules 3, 10 and 11 (basic ref training)

Training Course Learning Outcomes				
Module 1 **Staff Onboarding**	Date	Content	Activities	Assessment & In-person activities/follow-up to online module
After this module trainees will: Identify and examine the Dalhousie Libraries locations Visit and read Dalhousie Libraries pages and Sexton Campus offerings		**Documents** • Dalhousie Strategic Directions (bridge plan, and new ones coming soon) • Dalhousie Libraries Strategic Directions (new ones coming soon)	Review links Read documents Watch videos Download new employee forms (fill out and sign hard copy and	Review and discuss content Review how to use Office 365 for utilizing groups, creating and saving files, and making and accepting calendar requests

Read and discuss Dalhousie University Strategic Plan and Dalhousie Libraries Strategic Plan, and any policies and procedures relevant for Reference Staff Compile employee paperwork documentation for Reference Coordinator to be forwarded to HR and Payroll (for interns only) Practice the use of Microsoft Office 365 OneDrive groups, calendars, email, etc. **Topics** • About Dalhousie Libraries • About Sexton Library • Intro to Sexton campus and programs • Working at Dalhousie, university services, etc. • Getting set up in relevant OneDrive groups • NetID • Payroll forms, and other		• Critical Incident Plan • Intern Guide to Sexton Library **Videos** • Intro to Dalhousie Libraries • Sexton Library Tour **Links** • Office 365/OneDrive resource page (videos) • Microsoft E-Learning Resources (in software downloads for Dalhousie faculty/staff) • Dalhousie Libraries • About Library Council Committees • Senior Leadership Team website • Sexton Library • Engineering • Architecture & Planning	submit to Reference Coordinator) Forms Checklist: 1. NS Tax form 2. Federal Tax form 3. Confidentiality Agreement 4. Payroll Profile 5. Direct Deposit	
Module 2 **Introduction to Sexton Library Reference Services**	Date	Content	Activities	Assessment & In-person activities/follow-up to online module
After this module trainees will: Understand and apply reference training goals Review the resources on the reference wiki		**PowerPoint Presentation** • Ref Interview and Ref Goals **Links** • LibApps link to LibInsight platform • Reference wiki	Watch videos Review PowerPoint presentation Review reference wiki Request wiki account access	Review and discuss content Set up LibInsight password Review how to use LibInsight (entering stats for ref questions) Review the wiki and how to update

Gain access to wiki and demonstrate knowledge on how to access and update it Review, discuss and apply RUSA reference guidelines Explore the process of the reference interview and apply it to practice questions Demonstrate their knowledge of recording reference questions using the LibInsight software (Reference & Research Assistance dataset) **Topics** • Set up LibInsight username and password • Reference interview • Reference goals at Sexton Library (on wiki) • Overview of subsequent reference training • How to use LibInsight		• About reference interview (check for link on wiki)		
Module 3 **General/Basic Reference**	Date	Content	Activities	Assessment & In-person activities/follow-up to online module
After this module trainees will: Understand and apply basic reference service Review subject guides Review Dalhousie Libraries' policies, including loans, renewals and document delivery		**Videos** • Registering your DalCard as your library card • Finding print books in the catalogue • Finding eBooks in catalogue • Placing holds in catalogue • Renewing books	Review links Watch videos Review subject guides	Review and discuss content Discuss and review upcoming practice questions Demonstrate how to use the printer/photocopier Review and discuss study room booking systems - make a booking, and cancel a booking

Review policies and procedures related to copying and printing services, including 3D printing Demonstrate their knowledge of library account, including registration, and library account features Demonstrate their knowledge of finding books and eBooks in the catalogue and various other eBook platforms on and off-campus Review study room procedures, and demonstrate their knowledge of the study room booking systems **Topics** Basic Reference Getting started with the Libraries • Library account • Subject guides • Off-campus access Library Catalogue • Finding books • Loaning from Dalhousie Libraries and other consortia libraries Finding eBooks • Finding eBooks in the catalogue • eBooks LibGuide Document Delivery Loans and Renewals Copying and Printing		• Document Delivery **Links** • eBooks LibGuide • Study room booking system for library • Study room booking system for campus • Subject guides • Off-campus access : Using the library resources off-campus		

• Copyright guidelines • Copying • Printing • 3D printing Study Rooms • Book a study room at the Sexton Library • Book other study rooms on campus • Connecting to library resources off-campus				
Module 4 **In-Depth Reference** **Databases & Finding Articles** ***Includes Practice Questions***	Date	Content	Activities	Assessment & In-person activities/follow-up to online module
After this module trainees will: Identify and classify a database Demonstrate step-by-step their knowledge of finding journal articles in print Demonstrate step-by-step their knowledge of finding journal articles online Utilize various databases and resources to begin answering practice reference questions **Topics** • What is a database? • Step-by-step of how to find a journal article in print • Finding an online article		**Videos** • Finding articles in catalogue • Finding journals • Get it @ Dal & SFX	Watch videos **Practice Questions:** Download and complete practice questions and submit through Brightspace	Review and discuss content Discuss and review of practice questions Go through step-by-step process of how to find a journal articles in print and online

Module 5 **About Engineering & Related Databases** ***Includes Practice Questions and Subject Guide Activity***	Date	Content	Activities	Assessment & In-person activities/follow-up to online module
After this module trainees will: Identify and examine key resources for engineering Demonstrate an understanding of the engineering programs and research specializations offered on campus Understand and apply knowledge of using engineering citation and eBook databases **Topics** • Engineering programs on campus • Engineering research specializations • Key databases for engineering research • eBooks in engineering such as Knovel, Springer, ProQuest, IEEE, and ASTM		**Documents** • Subject guide checklist **Vendor Videos** • Compendex training videos • Knovel training videos **Links** • Engineering programs • Research specializations • Academic Timetable to review list of course descriptions • Key databases in engineering • Link to relevant subject guides **Selected Readings** • Using the Engineering Literature (book in ref) • Attached articles	Watch videos Review links Review selected readings **Practice Questions:** Download and complete practice questions and submit through Brightspace **Subject Guides Activity:** Create a file that outlines a checklist of all of the engineering subject guides reviewed	Review and discuss content Discuss and review of practice questions Submit checklist of subject guides reviewed